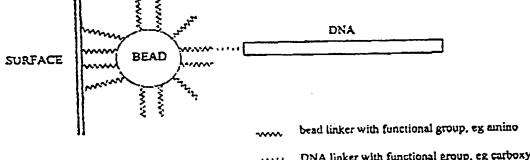
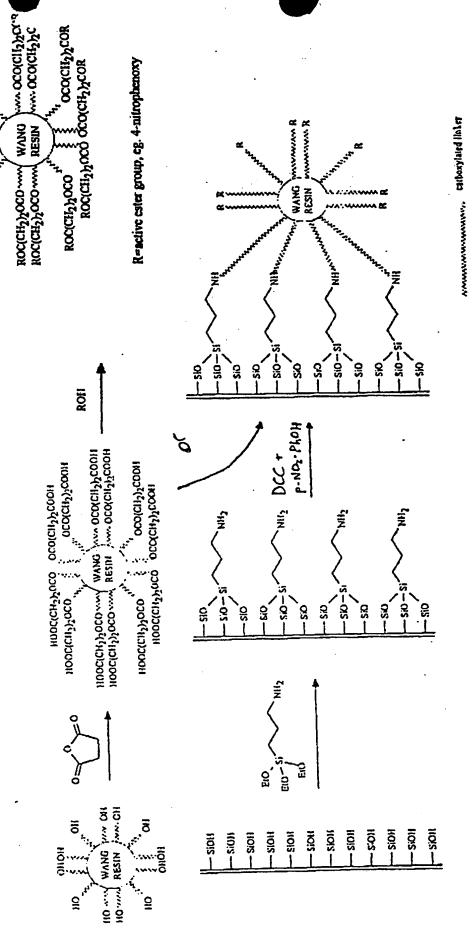
FIGURE 1



DNA linker with functional group, eg carboxy

OCO(CII) COR

ROC(CH2)ACCO CCC(CH2)ACOR ROC(CH2)ACOC S COC(CH2)

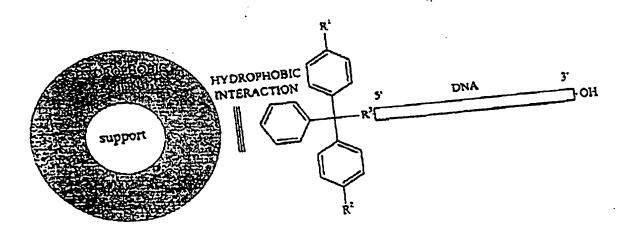


R puramitrophenol group

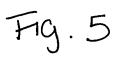
FIGURE 3

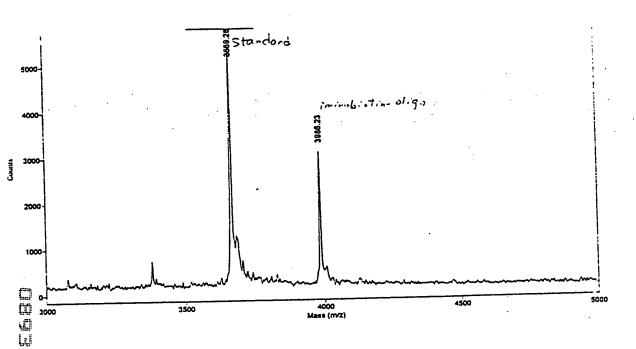
$$R^{1} = COO; (CH_{2})_{n}; (para or meta)$$
 $R^{2} = MeO; H$
 $R^{3} = MeO; H$
 $R^{4} = Cl; H$
 $R^{5} = (CH_{2})_{n}; (CH_{2})_{n}CONH(CH_{2})_{n}$

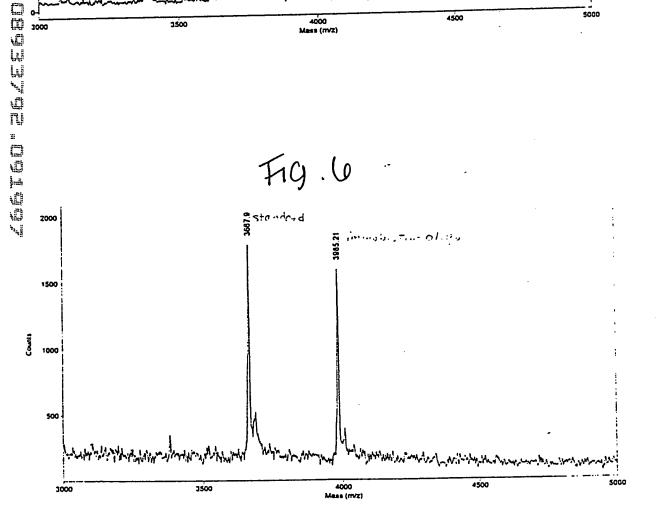
FIGURE 4



 $R^1 = OMc, H$ $R^2 = OMc, H$ $R^3 = O, NH$







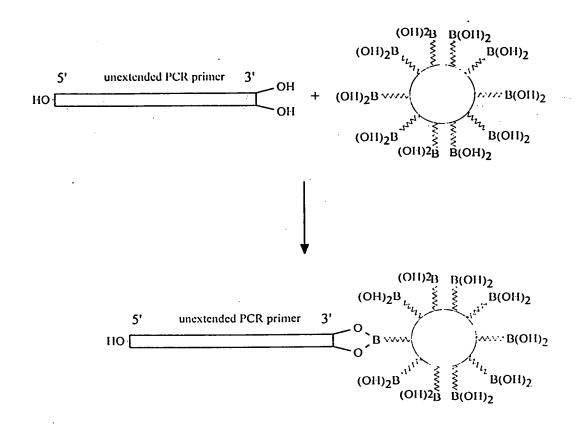


Fig. 7

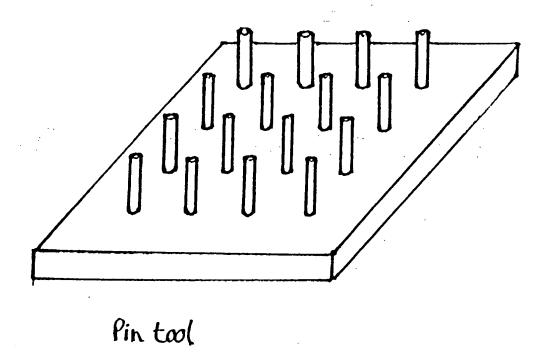
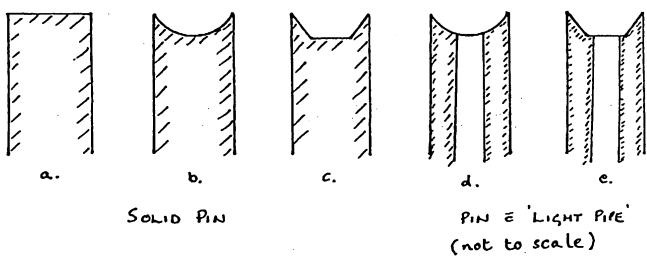
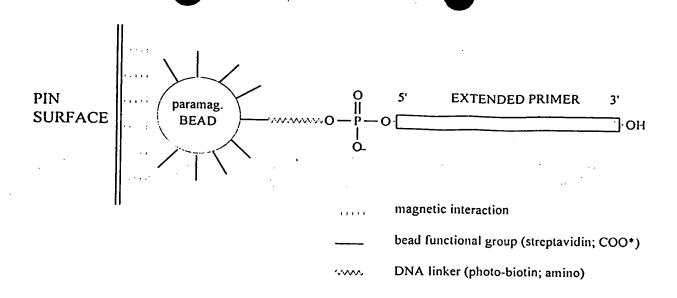
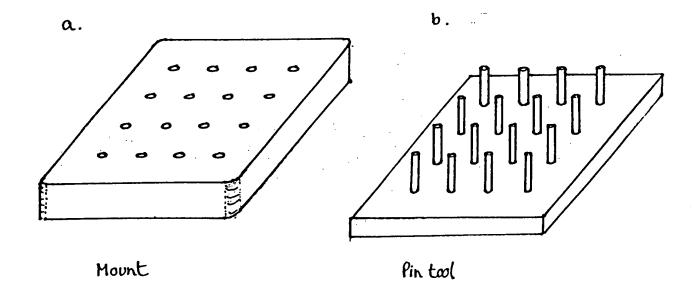


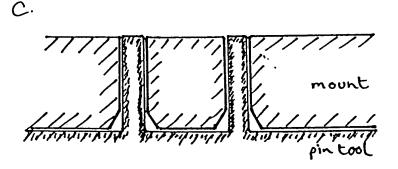
Fig. 8



 $R^{1} = (CH_{2})_{a}NHCO(CH_{2})_{b}; (CH_{2})_{c}S-S(CH_{2})_{d}$ $R^{2} = (CH_{2})_{c}CONH(CH_{2})_{f}; (CH_{2})_{g}S(CH_{2})_{h}$ $R^{3} = MeO; H$ $R^{4} = MeO; H$ $R^{5} = Cl: H$ $R^{6} = (CH_{2})_{n}; (CH_{2})_{x}CONH(CH_{2})_{y}$

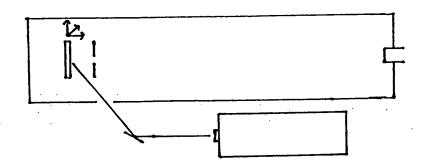




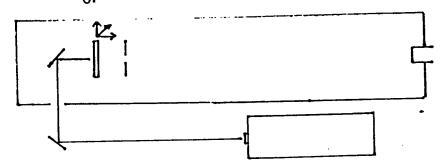


Cross section of mount a pin tool installed

Pintype a,b,c



Pintype de



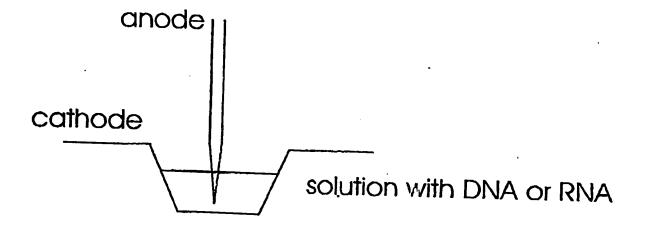


Fig. 14

Experimental flow diagram:

PCR: $50\mu I$ volume (3' modified primers)

Û

Addition of functionalised beads, incubation, capture of unused primers

Û

Aliquot PCR reaction to sequencing mixes (A,C,G,T)

υ

Aliquot sequencing mix into sequencing plate (192/384-well, 48/96 seq. R_X n's)

Û

Addition of sequencing primer(s), 5' modified to allow capture

Û

Cycle sequencing reaction: 10µl volume

π

Application of pin tool, capture of sequencing products

Û

Wash steps (3 x NH₄Cit)

л

Addition of matrix

π

Removal to chips

Û

Addition of matrix

£

Mass spectrometry